

1. **Claims 24-39 are rejected under U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claim 24, the examiner notes the language of the claim is confusing and the applicant is not clearly defining each element of the claim. There is lack of antecedent basis for the term "the circle area."** The applicant thinks that "annulus" is less confusing than "circle". The applicant has amended claim 24c as follows: "applying adhesive into the said circle area annulus and on top of the said core;"
2. **Also, in bullet "e", applicant claims "outside surface of the cylinder" which is confusing because there is a cylinder shaped core and cylinder shaped sides of the bracket. Clarification is necessary.** The applicant has amended claim 24 e to show that the core is next to the inside surface of the cylinder, and the outside surface of the cylinder is next to the outside of the drilled annulus. Claim 24e is amended as follows: "forming a strong bond with the adhesive between the inside ~~and outside~~ surface of the cylinder and the ~~outside~~ surface of the core, and the ~~inside~~ outside surface of the cylinder and the outside surface of the drilled circle annulus, and between the top of the core and the flat surface of the bracket."
3. **Regarding claims 25-29 and 31-32, the applicant is trying to limit the claim with functional limitations and comparisons to other inventions. There is no specific degree as to the values of time, surface areas, etc. rather they are vague comparisons to other methods which renders the claims indefinite.** The applicant has amended claim 25 to describe how the method of leaving a core allows the driller to drill shallower than he would using a standard drill. Claim 25 is amended as follows: "The method of claim 24 wherein drilling depth of the cylinder-shaped core left by the coring-bit is generally less allows a shallower depth than drilling a hole using a standard drill-bit."

4. **Regarding claims 25-29 and 31-32, the applicant is trying to limit the claim with functional limitations and comparisons to other inventions. There is no specific degree as to the values of time, surface areas, etc. rather they are vague comparisons to other methods which renders the claims indefinite.** The applicant has amended claim 26 to describe how the volume of a cylindrical sleeve is less than a drilled hole. Therefore less volume of material is removed from the surface. Claim 26 is amended as follows:
“The method of claim 24 wherein a drilled annulus would contain less volume than a drilled hole, therefore less material is removed from the surface using the coring-bit than when using ~~[[a]]~~ the standard drill-bit.”
5. **Regarding claims 25-29 and 31-32, the applicant is trying to limit the claim with functional limitations and comparisons to other inventions. There is no specific degree as to the values of time, surface areas, etc. rather they are vague comparisons to other methods which renders the claims indefinite.** The applicant has amended claim 27 to describe how drilling a shallower annulus and removing less material with a coring-bit uses less time than drilling with a standard drill-bit. Claim 27 is amended as follows:
“The method of claim 24 wherein a coring-bit drills shallower and removes less material than a standard drill-bit, therefore less time is consumed when drilling with the coring-bit than when using ~~[[a]]~~ the standard drill-bit.
6. **Regarding claims 25-29 and 31-32, the applicant is trying to limit the claim with functional limitations and comparisons to other inventions. There is no specific degree as to the values of time, surface areas, etc. rather they are vague comparisons to other methods which renders the claims indefinite.** The applicant has amended claim 28 to describe how an uncommon and expensive hammer-drill must be used when drilling a hole in masonry, but the coring-bit can use a normal drill. Claim 28 is amended as follows: “The method of claim 24 wherein a standard rotary-drill ~~[[is]]~~ can be used on the

coring-bit when drilling in masonry, whereas an uncommon and expensive hammer-drill ~~[[is]]~~ must be used ~~[[on]]~~ with a standard drill-bit when drilling in masonry.”

7. **Regarding claims 25-29 and 31-32, the applicant is trying to limit the claim with functional limitations and comparisons to other inventions. There is no specific degree as to the values of time, surface areas, etc. rather they are vague comparisons to other methods which renders the claims indefinite.** The applicant has amended claim 29 to describe how the smaller volume of a drilled annulus would use less adhesive than a drilled hole. Claim 29 is amended as follows: “The method of claim 24 wherein a drilled annulus would contain less volume than a drilled hole, therefore less adhesive is used in filling a drilled-out circle annulus and core top, than in filling a standard drilled-out hole when using a standard drill-bit.”
8. **Regarding claims 25-29 and 31-32, the applicant is trying to limit the claim with functional limitations and comparisons to other inventions. There is no specific degree as to the values of time, surface areas, etc. rather they are vague comparisons to other methods which renders the claims indefinite.** The applicant has amended claim 31 to describe how the surface area of the inside and outside surfaces of the cylinder are more than just the outside surface of a bolt . Claim 31 is amended as follows: “The method of claim 24 wherein the ~~bonding~~ surface area between ~~[[a]]~~ the core~~[[,]]~~ ~~drilled by a coring-bit[[,]]~~ and the inside of the ~~[[a]]~~ cylinder, and the inside of the drilled annulus and the outside of the cylinder is much more than the surface area of a bolt inserted into a hole, drilled by a standard drill-bit.”
9. **Regarding claims 25-29 and 31-32, the applicant is trying to limit the claim with functional limitations and comparisons to other inventions. There is no specific**

degree as to the values of time, surface areas, etc. rather they are vague comparisons to other methods which renders the claims indefinite. The applicant has amended claim 32 to describe how the utility of this new method is credible, specific, and substantial.

Claim 32 has been amended as follows: “The method of claim 24 wherein drilling ~~a circle~~ an annulus with a coring-bit and leaving the core for support, strength, and increased bonding surfaces, and using less adhesive ~~is a~~ are vast improvements over standard drilling ~~a hole~~ with a standard drill-bit.”.

10. **Regarding claim 34, the terms “generally similar” is vague and indefinite. The term does not clearly define the exact diameter of the cylinder.** The applicant has amended claim 34 to describe how the diameter of the cylinder and the coring bit are generally equal. Claim 34 has been amended as follows: “The bracket of claim 33 wherein the diameter of the cylinder is generally ~~similar~~ equal to the diameter of a coring-bit, thereby the cylinder fits into the drilled-out ~~circle~~ annulus left by a coring bit.”
11. **Regarding claim 39, the terms “different types of apparatuses” is vague and indefinite. The language does not specify the apparatuses or limits of the strength to which the bracket can hold.** The applicant has amended claim 39 to describe that the “apparatuses” are actually “hooks”. Claim 39 has been amended as follows: “The bracket of claim 33 wherein the attaching web on the opposite side of the closed end has an attached web for temporary or permanent holding of different types of ~~apparatuses~~ hooks that need to be secured to a generally flat surface.”
12. **Regarding claim 34, lack of antecedent basis applies to the term “the drilled-out circle”.** The applicant has amended claim 33, lines 1-2, to describe the “drilled-out circle” as a “drilled-out annulus”. Claim 33, lines 1-2 is amended as follows: “A bracket for

inserting into a drilled-out circle, annulus drilled by a core-bit comprising:".

13. **Regarding claim 35, lack of antecedent basis applies to the term "the core".** The applicant has amended claim 33, lines 1-2 to describe the inner core left by the coring bit. Claim 33, lines 1-2 is amended as follows: "A bracket for inserting into a drilled-out circle annulus, containing an inner core, drilled by a core-bit comprising:".
14. **Regarding claim 36, lack of antecedent basis applies to the terms "the drilled circle" and "core".** Amended claim 33, lines 1-2 now state the "drilled-out annulus" and "core".
15. **Regarding claims 37 and 38, lack of antecedent basis applies to the term "the adhesive".** Claim 36 introduces "an adhesive".
16. **Claims 33-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Birs (US 5383315).** Regarding claim 33 Birs illustrates in Figure 5 a bracket comprising sides that are shaped like a cylinder; on end of the cylinder is open; the other end is generally closed and generally flat; and the opposite side of the closed end contains an attaching web. Birs' threaded sleeve washer, shown in fig. 5, has "the washer part 13 (is) provided with openings 14, which allow riveting, gluing or soldering to the panel 5." (Column 3, lines 66-68). Amended claim 33 now states : "A bracket for inserting into a drilled-out circle annulus, containing an inner core, drilled by a core-bit comprising:". Birs' washer part 13 has holes for fastening to a panel. That is quite common. The present invention, a sleeve that inserts into a drilled-out annulus, is novel and unobvious. Plus, the applicant has narrowed claim 33 by adding the following: "e. thickness of said cylinder sides sized to fit into said drilled-out annulus."

17. **Regarding claim 34, Birs illustrates the cylinder (11) having a diameter. The rest of the language within the claim is vague and indefinite as to the relative size of the diameter. The examiner notes that the hole in which 11 fits into was drilled as per the specification, thus the diameter has to be generally similar. Also, language “fits into bit” is intended use and not given patentable weight (Ex parte Masham 2 USPQ 2nd 1647 (1987)). Birs’ cylinder 11 is actually a threaded nut. Birs’ figure 4 shows a common square nut 11 welded or soldered 12 to a panel (column 3, lines 60-64). Birs’ figure 5 shows a threaded sleeve 11 on a washer 13. Birs’ figure 2 shows threaded bolts 8 screwed into the threaded sleeve 11 (column 3, lines 48-51). Therefore, Birs’ threaded sleeve 11 would have to be turned, and could not slide into a drilled annulus. Amended claim 34, lines 2-3 states “thereby the cylinder fits slides into the drilled-out circle annulus left by a coring bit.”**
18. **Regarding claim 35, Birs illustrates the cylinder having an opening, as described above. Also, language “to fit...bit” is intended use and not given patentable weight (Ex parte Masham 2 USPQ 2nd 1647 (1987)). As shown above, Birs’ cylinder is threaded. The present invention has a smooth cylinder so it can fit into the drilled annulus and around the drilled core. Amended claim 35, lines 1-3 states: “the cylinder has an a generally smooth opening, and diameter to fit over the core left by a coring bit.”**
19. **Regarding claims 36 and 37, Birs teaches in column 3 the bracket (11) being attached via an adhesive placed on flange (13). Birs’ figure 2 shows a cross section of how his threaded sleeve 11 has to be welded, soldered, or glued to the back of his panel 5. The threaded sleeve, or nut 11, has to be attached as it would be blind. That is, a wrench could not be held onto the nut behind the panel shown in figure 3. Glue has to be applied to the wide flange 13, because if any adhesive got into the threaded sleeve 11, the bolt 8 could**

not be threaded in. To show that the sleeve of the cylinder is glued, the applicant has amended claim 36. Amended claim 36 reads as follows: "The bracket of claim 33 wherein the open end of the cylinder, the sides of the cylinder, and the inner top of the bracket is attached to the drilled circle annulus and core by an adhesive."

20. **Regarding claims 36 and 37, Birs teaches in column 3 the bracket (11) being attached via an adhesive placed on flange (13).** As stated above, Birs' threaded sleeve 11 cannot contain adhesive. Since a bolt 8 has to thread into his sleeve 11, it cannot be inserted into a drilled annulus or over a core. To read over Birs, the applicant has amended claim 37 as follows: "The bracket of claim 33 wherein the adhesive has generally full contact with the cylinder sides and ~~flat end~~ inner top of said bracket."
21. **Regarding claim 38, Birs illustrates a flange portion (13) attached to the cylinder walls (11) thus providing a break and more surface area for an adhesive to be placed thus better securing item 11 to a surface.** Birs' flange 13 has "openings 14 which allow riveting, bolting, gluing, or soldering to the panel." (Column 3, lines 67-68). Birs' openings are holes. The present invention has a break or space between the edges of the sides, which allows expansion and greater holding power of the adhesive to the cylinder's sides. The applicant has amended claim 38 as follows: "The bracket of claim 33 wherein the cylinder has at least one **break** space for better gripping of the adhesive."
22. **Regarding claim 39, it is described above that the item in Figure 5 has an attaching web. The language of the claim "for temporary...surface" is intended use and given no patentable weight as per Ex parte Masham.** Birs attaching means on his sleeve 11 is the inside threads. The attaching means on the present invention's cylinder is adhesive into the annulus and onto the core. Birs' attaching means on his flange 13 is glue, welding, or

soldering. The attaching means on the present invention's top is connecting to other apparatuses by a hook. The applicant has amended claim 39 as follows: "The bracket of claim 33 wherein the attaching web on the opposite side of the closed end has an attached web as an attaching means for temporary or permanent holding of different types of hooks on apparatuses that need to be secured to a generally flat surface."

23. **Claims 24-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Birs (US 5383315). Regarding claim 24, Birs illustrates in Figures 1-5 and discloses within the specification a method of attaching a bracket to a solid, generally flat surface comprising : drilling into a surface; applying adhesive, applying a bracket, and forming a strong bond with the adhesive.** The amended claims have been narrowed to make the distinctions of applying a cylinder to a drilled-out annulus much stronger than before. It is obvious from Birs' figures 4 and 5 that the flat part of the nut in figure 4, and the flat flange in figure 5 are glued or welded to a flat surface. Birs' column 4, lines 17-18 states "Holes are then drilled...". Holes are drilled by standard drills. The applicant's annulus and core are drilled by coring-bits. Bir's column 4, line 19 states that the holes are drilled "through the panels." The applicant's method does not drill through. It leaves an annulus and a core.
24. **Regarding claims 25-29 and 31=32, the examiner notes that the limitations are functional in nature and the invention as described above is capable of performing such functions as using less time, removing less material, and using less adhesive than other methods.** Bir's column 4, lines 28-29 state "Finally, holes are drilled into the wall for the lateral bolts 9 and, after anchors have been placed in the walls,". Drilling a hole into a wall and installing anchors have been known for years. The main problem is drilling into cinder-block walls. The hollow cavity inside the block can swallow up the anchor and/or the adhesive. Plus, when using a hammer-drill, it explodes out the cavity making it

mushroom-shape on the inside. That weakens the block, and makes the area for holding the anchor or adhesive less than normal. The applicant's method of drilling a shallow annulus and leaving a core, keeps the integrity of the block, saves time, saves adhesive, and makes a strong bond.

25. **Regarding claim 30, the examiner notes that the bracket 11 is held in place by friction and normal forces applied via the snug fit walls that are formed when the underlying structure was drilled.** Drilling a hole in masonry removes a large volume and distresses the sides of the hole. The hole is almost always tapered, with the larger area near the opening. When a bolt is inserted in a tapered hole, it falls to a side instead of remaining upright. With the present invention, the cylinder remains upright because of friction between the sides of the core, the outer side of the annulus, and the cylinder. Amended claim 30 now reads: "The method of claim 24 wherein friction between both walls of the annulus and the core holds the cylinder of the bracket in place while the adhesive is curing, whereas brackets in standard drill holes can lean to edges of the drilled hole."

26. **Conclusion**

The above physical differences and advantages are unobvious and are stated in the amended claims. The above results are unexpected, and unsuggested by prior reference. The problems solved by the invention were never before even recognized. The recognition of an unrecognized problem militates in favor of patentability.

Accordingly, since the applicant perceives that the amended claims read over the cited reference, the applicant submits that this application is now in full condition for allowance, which action applicant respectfully solicits. If the examiner agrees but does not feel that the present claims are technically adequate, applicant respectfully requests that the examiner write acceptable claims pursuant to MPEP 707.07(j).

Appn. Number 09/690,657 (Thompson); Art Unit 3635, Examiner: Mark R. Wendell

Respectfully submitted,

A handwritten signature in cursive script that reads "Thomas C. Thompson". The signature is written in black ink and is positioned above the printed name.

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